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ABSTRACT

A model that depicts communication as a dynamic ongoing phenomenon is presented in this paper. The key elements of the described model are: environmental factors, actor/auditor, image, perception, messages, channels, intrapersonal feedback, and consensus of meaning. An axiomatic basis is provided for each variable to serve as rules of correspondence between the variable as treated in the model and human interaction. The discussion of each variable includes an evaluation of past treatments and a justification for the present notation. This discussion reflects the model's isomorphic properties. The paper concludes with a number of research questions that reflect the model's heuristic properties. (Author)

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A Process Model of Communication

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ABSTRACT

This paper presents a descriptive model of communication from a process perspective, that is, the model depicts communication as a dynamic ongoing phenomenon. The key elements of this model are 1) environmental factors, 2) Actor/Auditor, 3) Image, 4) Perception, 5) Messages, 6) Channel(s), 7) Intrapersonal Feedback, 8) and Consensus of Meaning. An axiomatic basis is provided for each variable to serve as rules of correspondence between the variable as treated in the model and human interaction. The discussion of each variable includes an evaluation of past treatments and a justification for the present notation. This discussion reflects the model's isomorphic properties. The paper ends with a number of research questions which reflect the model's heuristic properties.

A Process Model of Communication

The area of Communication has continually struggled with the issues of theory development and model construction. Hawes (1975) describes the differences between theories and models by treating theories as explanations of relationships which exist between variables of a phenomenon and models as representations of key variables and their structure or function (p. 111). Therefore, this paper is a descriptive representation of communication which portrays the dynamic, and mutually interrelated nature of the variables involved.

For a model to be useful Barnlund (1968) maintains models and the act of model building are useful to the extent they clarify structure and identify key variables (p. 19). Hawes (1975) elaborates on a model's usefulness when he discusses the criteria for evaluating models. The criteria are heuristics (i.e., ability to generate meaningful questions/hypotheses), isomorphism (i.e., amount of similarity between model and event), and correspondence (i.e., procedures used in mapping process) (pp. 114-115).

Most models currently taught or presented at any level of speech communication education in one way or another fail to meet the criteria of Barnlund or Hawes (e.g., Weaver, 1978: Ehninger, Monroe, and Gronbeck, 1978: McCroskey and Wheeless, 1976: Barnlund, 1968: Westley and MacLean, 1957: Shannon, 1948). What follows is not an in depth analysis of these or other models in contemporary use. The models are cited to provide a frame of

reference for noting the changes presented in the following descriptive model of communication from a process perspective. The paper presents and explains the key variables in the model along with a statement of their importance and implications. The discussion of each variable begins with the presentation and discussion of an accepted communication axiom or guiding principle.

The first axiom is: Communication cannot take place in a vacuum. The communication variable related to this axiom is labeled environmental factors. The notation of X_1, X_2, X_3,. . . . within an enclosed rectangle (See Appendix A) is designed to reflect a virtually limitless number of elements or factors operating within a set context or given parameters.

The nature of the environmental factors include such variables as society, culture, sub-cultures, laws, norms, objects, time, as well as, such physical conditions as temperature, weather, light, space, color, odor, and decor. Many treatments of these variables consider them as noise or intervening extraneous factors which somehow detract from the effectiveness of the communicative act. From this perspective the factors become items which must be either controlled, managed, or overcome by the participants. The environmental factors notation allows for the traditional view but is not limited to it. Many of the environmental factors should be viewed as purposeful if not intentional.

Further, the environmental factors are not directly linked to any particular variable(s). The rationale is any variable may or may not be operating at a given time. In addition, a particular variable or combination of variables may be influencing any

combination of other parts of the communicative structure (i.e., messages, channel(s), or participants) at any given point.

The next aspect of the model is the participants. The axiom applied to this variable is: communication is simultaneous behavior. This axiom reflects the notion of the participants in a communicative setting both behaving and monitoring the behavior of others and themselves at the same time. Although not commonly considered as such, this axiom is crucial to a view of communication as a dynamic ongoing process. When the participants are viewed as both initiator and monitor of behavior it is impossible to determine the beginning of an exchange. The impossibility forces a non-linear or approach to communicative behavior. More is said about the systemic vs. the linear perspectives or communication in the feedback section of this paper.

The notation used to reflect the behaving portion of the participant is Actor. The Auditor notation is used to reflect the monitoring portion. The terms Actor/Auditor are used to reflect the humanness of the participants and to reflect the variety of messages commonly found in the communicative process. The older terminology of sender/transmitter and receiver smacks of a highly mechanical view of communication. In addition, the older terminology also implies a linear, stimulus-response perspective. The terminology of speaker and listener, although humanistic in nature, also implies a linear relationship. A shared weakness of both sets of terms is the implied restriction on the possible number of symbol systems which can be utilized at any one time. A transmitter is limited to the type and nature of signal sent as is speaker.

However, the Actor terminology can account for all the coding systems normally associated with human behavior (i.e. semantic, syntactic, kinesic, proxemic, and paralinguistic). Further, the Actor terminology can account for multiple, as well as, contradictory messages. The actor accounts for the use of multiple codes and messages by emphasizing simultaneous sending of verbal and nonverbal messages. The term Auditor is advantageous in its implications for humanism and the notion that numerous behaviors are monitored. The practicing auditor examines a variety of documents (i.e. messages) ranging from the balance sheet to the stock inventory. In the same light the communicator as auditor is also monitoring a variety of messages.

Traditionally, any consideration of the participants stops with a notation of function. The problem which arises from such a practice is the implication that the participants are very similar if not identical. The notation of Image is included in the model to account for individual uniquenesses (See Appendix A). The term was developed by Boulding (1956) to accomodate such concepts as attitudes, values, beliefs, opinions, and feelings. The axiom related to image is: "The image is the basis of all behavior (Boulding, 1956, p. 7)." Boulding's image or Bettinghous' (1973) frame of reference is developed and structured individually from past experiences and other forms of information. The image structure, therefore, constitutes how we see and feel about ourselves and the world around us. As a result it constitutes the basis for the patterns we develop to allow us to deal with the world around us.

Since the image is the basis for all behavior it has a central location in each of the participants. The behavior influenced by the image includes all of the Actor behavior, all of the Auditor behavior, and the process of perception as well. To avoid any chicken and egg argument let it be sufficient to say as soon as an individual begins to organize the rudiments of information into an image, the image begins to influence what type or nature of information the participant will attend to or take-into-account.

Perception itself is the final variable related to the participants. The axiom here is: Individuals attend to different and selected information. The notation used to depict the attention selection process is the perception screen (See Appendix A). Models which do not include such a notation imply the individual is at the mercy of any and all behavior or messages they are physically capable of monitoring. If this were true people would not be able to focus their attention on anything and would quickly become nervous wrecks due to information overload. However, people are capable of controlling their inputs via the interrelated nature of the image and the perception screen.

The next major variable is messages. A participant cannot not communicate is the axiomatic basis for the treatment of the messages variable. Most models of communication indicate a single message is communicated at any one time. The fallaciousness of such an implication is apparent when it is realized each of the five coding systems, mentioned earlier, are capable of carrying information in the form of a message. The ability of an individual to send, either knowingly or unknowingly, contradictory messages further substantiates the necessity to refer to the

variable as messages (Ms) (See Appendix A). The messages notation reflects a more accurate view of the communicative process than does the normal message singular notation.

Channel as a variable is closely related to the message variable. However, where the messages plural notation is required the channel/channels ($C_{(s)}$) notation is necessary (See Appendix A). The conventional definition of channel as the medium for conveying the information is maintained for this model. The five senses related to the monitoring of information/messages are the basis for the five typologies of channels.

The ($C_{(s)}$) notation is designed to account for such single channel communication situations as the telephone conversation or the signing of the deaf. The notation also reflects multiple channel situations such as television and interpersonal communication. Again, such a channel notation presents a more accurate picture of the communication experience.

Perhaps the most significant departure from traditional models of communication and a key factor in viewing communication as process lies in the abandoning of the traditional feedback loop. In this model the loop is replaced by the same messages (Ms) and Channel(s) ($C_{(s)}$) notation used at the top of the model (See Appendix A).

The shortcomings of the traditional feedback loop stem from its implication of a one-way causal relationship (von Bertalanffy, 1962) and its linear, unidirectional, and mechanistic properties (Kim, 1975). The problem created by the stimulus-response perspective of feedback is its inherent contradiction with a systemic view of communication as process. (For a more complete analysis

of this issue see Ashmore, 1979).

Changing the feedback notation in this manner automatically frees the model of stimulus-response or linear relationship between the participants. The individuals involved do exchange information but the model does not suggest who spoke first, where the interaction began, or a causal relationship between antecedent and consequent acts. This notation change should allow a clearer depiction of communication as a dynamic process.

Since cybernetics define feedback as the means by which "the system output is sampled, measured, and fed back to the input with subsequent modification, if necessary, of the output (De Greene, 1976, pg. 117, see also Hall and Fagan, 1968, p. 87)," it is necessary to account for the feedback function in human behavior. In this paper the system under consideration is the individual participant not the sum of the participants involved in the communicative event. From this perspective the system output is the Actor's behavior as found in the Channel(s) not the effects of the behavior as reflected in the response of another participant.

Therefore, the feedback notation in this model is from the channel back to the Auditor portion of the participant who initiated the behavior (See Appendix A). The axiom which serves as the basis for this variable is: feedback is the monitoring of system output. Existing models of communication do not indicate the possibility or inevitability of an individual being aware or influenced by his/her behavior. Currently the models imply the only impact an individual's behavior can have on him/herself comes as a result of observing other's behavior.

However, Miller's (1973) comprehensive review of counter-attitudinal advocacy demonstrates the impact the message can have on its originator. Further evidence of messages impact on the originator is found in Fisher's (1975) work on the initial learning of speech production and Mysak's (1966) discussion of comparing desired words with the words produced. Therefore, the treatment of feedback in this model more accurately reflects a cybernetic perspective of the term while accounting for a message's impact on its author.

Consensus of meaning is the final variable dealt with in the model. The axiomatic basis for this varialbe is: meaning is developed through interaction. With the advent of intent oriented perspectives of communication meaning was within the domain of the sender or speaker. The implication being if the desired response was not obtained communication did not take place. Later, a second view was developed which placed meaning not in the domain of the speaker but in the domain of the receiver or listener. This perspective implies the sole determinant factor in assertaining what meaning was carried in a message is the resulting behavior change observed in the receiver or listener. The focus here is not what was said but the nature of the response.

The problem of linear stimulus-response reasoning is inherent in both approaches. Since viewing communication from a process perspective requires a mutual interdependency of variables it is necessary to view meaning as an entity which must be shared, to a certain degree, by the parties involved. Consensus of meaning as reflected in a Venn diagram is the notation for labeling and

locating meaning in this model (See Appendix A). Locating meaning between the participants implies its shared characteristic and treats meaning as the output of the interaction process.

It is important to note at this point that once a degree of consensus has been reached the degree need not remain fixed or always increase. One should assume the degree or amount of consensus on a subject would increase as the amount of information exchanged increases. However, it is suspected that if additional contradictory information is exchanged the amount of consensus of meaning on the designated issue may decrease. Therefore, consensus of meaning should be viewed as a dynamic fluctuating variable.

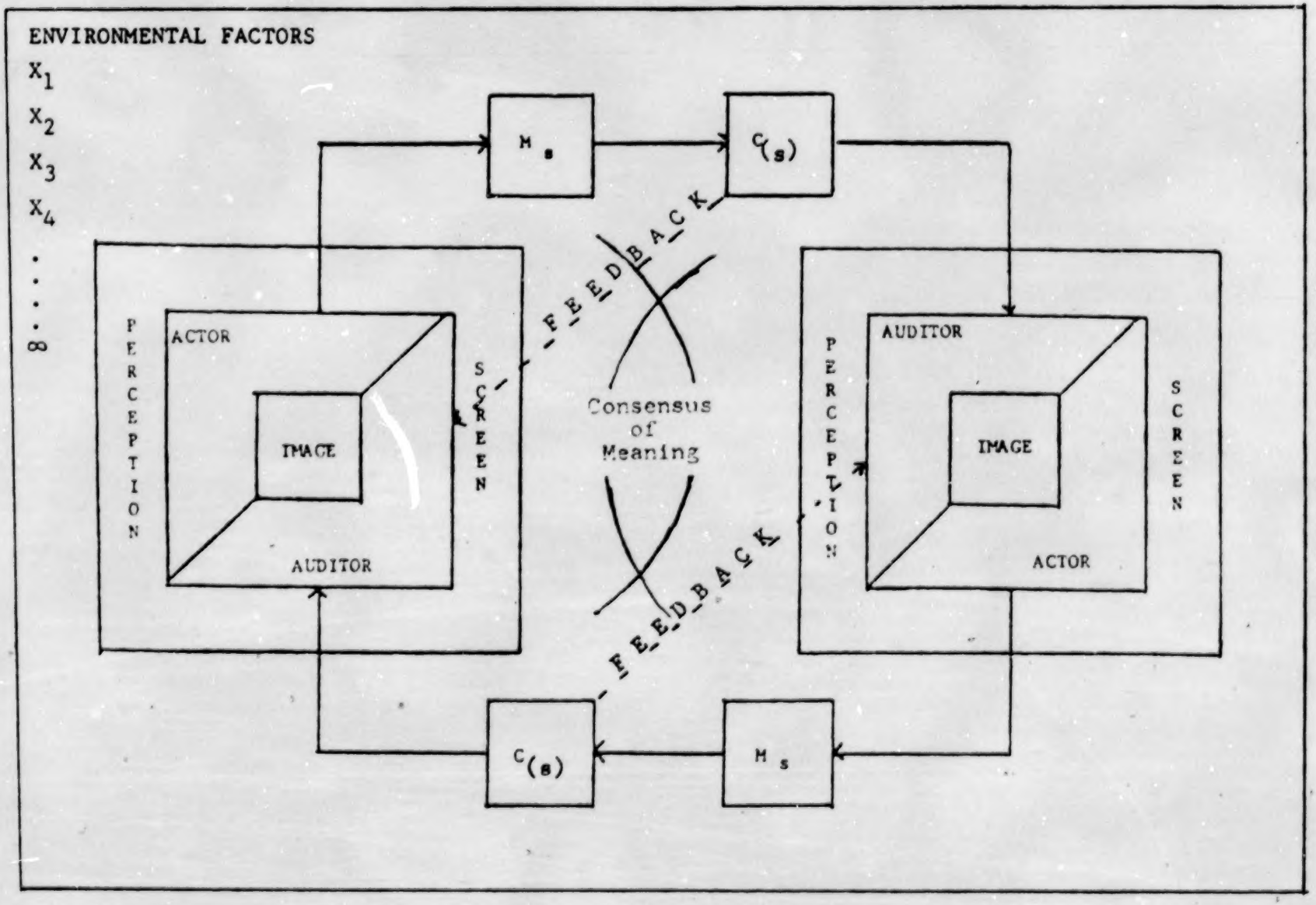
With the identification and discussion of the key variables in this process model completed it is beneficial to examine some possible research questions generated by the model. The heuristic properties of this model are reflected in the following research questions:

1. To what extent does communicative behavior influence the perception of the environment?
2. How can syntax be measured as a communicative symbol system?
3. To what extent are the Actor and Auditor roles operating simultaneously?
4. How complete is an image structure before it becomes resistant to change?
5. To what extent is the image of self determined by the monitoring of one's behavior?
6. How much contradictory information is necessary to induce revolutionary change in the image?

7. To what extent does perception serve an information seeking function?
8. To what extent does perception serve an information avoidance function?
9. How is the amount of information exchanged related to the degree of consensus of meaning?
10. How is the kind of information exchanged related to the degree of consensus of meaning?
11. What kinds and amounts of information is necessary to reduce consensus of meaning?
12. How much of the behavior of the actor is monitored by the auditor?
13. What kinds of behavior is the auditor normally monitoring?
14. When will a participant alter his or her behavior as a result of finding a discrepancy between actual and desired behavior?

At this point the research questions reflect the heuristic properties of the model. The evaluation of past model notations for particular variables and the justification for proposed notations reflect the model's isomorphic properties. The stated axioms provide the rules of correspondence between the model and communication as a process. What remains is a thorough testing and examination of the relationships between the variables as they are treated in the model.

It is hoped the model, as a result of a sound evaluation, will serve to provide meaningful insights into the communicative process and to serve as grounds for further theoretical developments.



APPENDIX A
A Process Model of Communication

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